

#6

SEQUENCE LISTING



<110> Castle, Linda A.
 Siehl, Dan
 Giver, Lorraine
 Minshull, Jeremy
 Ivy, Christina
 Chen, Yong Hong
 Duck, Nicholas B.

<120> NOVEL GLYPHOSATE N-ACETYLTRANSFERASE
 (GAT) GENES

<130> 02-107010US

<140> US 10/004,357

<141> 2001-10-29

<150> US 60/244,385

<151> 2000-10-30

<160> 515

<170> FastSEQ for Windows Version 4.0

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<212> DNA

<213> Bacillus licheniformis

<400> 1

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cattcagagc ttgaaggcga agaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagcgggta ctataaaaag 360
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<212> DNA

<213> Unknown

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<223> Unidentified microorganism derived from soil sample

<400> 2

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aaaggcgagc accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cgggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a                                     441
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<212> DNA
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<223> Unidentified microorgansim derived from soil sample

<400> 3

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cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
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aaaggcgcgg accttttatg gtgcaacgcc aggatatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaagg cgggatctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a                                     441
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<210> 4

<211> 441

<212> DNA

<213> Unknown

<220>

<223> Unidentified microorgansim derived from soil sample

<400> 4

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cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggatatctg tgagcggcta ctatgaaaag 360
ctcggcctca gcgaacaagg cgggatctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a                                     441
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<210> 5

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<212> DNA

<213> Unknown

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<223> Unidentified microorgansim derived from soil sample

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cacctcgggtg gatattacca gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgaggcgga agaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcgaaaa 300
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ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
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<210> 6

<211> 146

<212> PRT

<213> Bacillus licheniformis

<400> 6

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His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
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Thr	Asp	Leu	Leu	Gly	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Lys	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Glu	Glu	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70				75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85				90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105					110			
Ser	Val	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120				125				
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
145															

<210> 7
 <211> 146
 <212> PRT
 <213> Unknown

<220>
 <223> Unidentified microorgansim derived from soil sample

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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Asp
		35				40					45				
Arg	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70				75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85				90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105					110			
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115				120					125				
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 8
 <211> 146
 <212> PRT
 <213> Unknown

<220>
 <223> Unidentified microorgansim derived from soil sample

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Asn	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85				90						95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Ile
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Ile	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Ala														
145															

<210> 9
 <211> 146
 <212> PRT
 <213> Unknown

<220>
 <223> Unidentified microorgansim derived from soil sample

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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Asn	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85				90						95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Ile
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Leu	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Ile	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Ala														
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<210> 10
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 <213> Unknown

<220>
 <223> Unidentified microorgansim derived from soil sample

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Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Gln Gly			
35	40	45	
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu			
50	55	60	
Glu Gly Glu Glu Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly			
65	70	75	80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu			
85	90	95	
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr			
100	105	110	
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu			
115	120	125	
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Leu Thr			
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic DNA Sequence

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 cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
 catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
 taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
 aaaggcgcgg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
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 atgtataaga aattgacgta a 441

<210> 12
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic DNA Sequence

<400> 12
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 cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
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 aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
 ctcggttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
 atgtataaga aattgacata a 441

<210> 13
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 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 13

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cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gagcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttaa tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg aagcacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
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<210> 14

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 14

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cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
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aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cgactggggc ccatattttg 420
atgtataaga aattgacgta a                                     441
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<210> 15

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 15

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caccttggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
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aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggccggacc ccatattttg 420
atgtataaga aattgacgta a                                     441
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<210> 16

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

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cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
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taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

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<210> 17

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<221> misc_feature

<222> 54

<223> n = A,T,C or G

<400> 17

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cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
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atgtataaga aattgacgta a 441

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<210> 18

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 18

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atgtataaga aattgacgta a 441

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<210> 19

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 19

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cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300

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aagggcgag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

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<210> 20

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 20

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taccgcgagc aaaaagcggg aagcacgctt atccgccatg ccgaagagct tcttcgaaa 300
aagggcgag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
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atgtataaga aattgacgta a                                     441

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<210> 21

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<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 21

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cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
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aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
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atgtataaga aattgacgta a                                     441

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<210> 22

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<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 22

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cacctcggtg gatattatcg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
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ctcggcttca gcgaacaagg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacata a                                     441

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<210> 23

<211> 441

<212> DNA

<213> Artificial Sequence

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<223> Synthetic DNA Sequence

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcgattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgctt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
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<210> 24

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 24

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcatactc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgctt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
caccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
```

<210> 25

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 25

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcgattctc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcgg gggtacgctt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
```

<210> 26

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 26

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcgattctc 60
```

```

cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggcgctgtt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaaggg 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcgaaa 300
aaagggcgcg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 27

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 27

```

atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 28

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 28

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atgattgaag tcaaaccgat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 29

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 29

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

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<210> 30
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 30
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg ggggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 31
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 31
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcgg ggggtacgttt 120
cacctcggtg gatattacca gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a 441

<210> 32
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 32
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcgtgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattacca gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a 441

<210> 33
<211> 441
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 33

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag ggggtgcgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
caccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcgaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc caactgggcc ccatattttg 420
atgtataaga aattgacgta a                                     441
```

<210> 34

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 34

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtccac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a                                     441
```

<210> 35

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 35

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag ggggtacgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
```

<210> 36

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 36

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgcttgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
```

taccgtgagc	aaaaagcggg	aagtacgctc	atccgccatg	ccgaagagct	tcttcggaaa	300
aagggggcag	accttttatg	gtgcaacgcc	aggacatctg	cgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaagg	cggggtctac	gacataccgc	cggtcggacc	tcatattttg	420
atgtataaga	aattgacgta	a				441

<210> 37

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 37

atgattgaag	tcaaaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgcattctc	60
cggccgaatc	agccgctgga	agcatgcaag	tatgaaaccg	atttgctcgg	gggcacgttt	120
cacctcgggtg	gatattatcg	gggcaagctg	atcagcatcg	cttcctttca	tcaagccgaa	180
catccagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	acttgaagag	240
taccgcgagc	aaaaagcggg	aagcacgctc	atccgccatg	ccgaagagct	tcttcggaaa	300
aagggggcag	accttttatg	gtgcaacgcc	aggacatctg	cgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaagg	cgaagtctac	gacgcaccgc	cgaccggacc	tcatattttg	420
atgtataaga	aattgacgta	a				441

<210> 38

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 38

atgattgaag	tcaaaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgcattctc	60
cggccgaatc	agccgctgga	agcatgcaag	tatgaaaccg	atttgctcgg	gggcacgttt	120
cacctcggcg	gatattaccg	gggcaagctg	gtcagcatcg	cctcctttca	tcaagccgaa	180
catccagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	acttgaagga	240
taccgtgagc	aaaaagcggg	cagtacgctt	atccgccatg	ccgaagagct	tcttcggaaa	300
aagggggcag	accttttatg	gtgcaacgcc	aggacatctg	cgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaagg	cggggtctac	gacataccgc	cggtcggacc	tcatattttg	420
atgtataaga	aattgacgta	a				441

<210> 39

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 39

atgattgaag	tcaaaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgcattctc	60
cggccgaatc	agccgctgga	agcatgtatg	tatgaaaccg	atttgctcgg	gggcacgttt	120
cacctcgggtg	gatattaccg	gggcaagctg	atcagcatcg	cttcctttca	tcaagccgaa	180
catccagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	acttgaagag	240
taccgcgagc	aaaaagcggg	aagcacgctc	atccgccatg	ccgaagagct	tcttcggaaa	300
aagggggcag	accttttatg	gtgcaacgcc	aggacatctg	cgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaagg	cggggtctac	gacataccgc	ctgtcggacc	tcatattttg	420
atgtataaga	aattgacgta	a				441

<210> 40

<211> 441

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 40
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a 441

<210> 41
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 41
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca ccaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aaagggcgcg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacata a 441

<210> 42
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 42
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaactg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cgggtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a 441

<210> 43
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 43

atgattgaag	tcaaaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgcattctc	60
cggccgaatc	agccgctgga	agcatgcaag	tatgaaaccg	atttgctcgg	gggcacgttt	120
cacctcggtg	gatattaccg	gggcaagctg	atcagcatcg	cctcctttca	tcaagccgaa	180
cattcagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	acttgaagga	240
taccgcgagc	aaaaagcggg	cagtacgctt	atccgccatg	ccgaagagct	tcttcgga	300
aagggggcag	accttttatg	gtgcaacgcc	aggacatctg	cgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaggg	cgaagtctac	gacacaccgc	cggtcggacc	tcatattttg	420
atgtataaga	aattgacgta	a				441

<210> 44

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 44

atgattgaag	tcaaaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgcattctc	60
cggccgaatc	agccgcttga	agcatgtatg	tatgaaaccg	atttgctcgg	gggtacgttt	120
cacctcggtg	gatattacca	gggcaagctg	atcagcatcg	cttcctttca	taaagccgaa	180
cattcagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	acttgaaggg	240
taccgcgagc	aaaaagcggg	cagtacgctt	atccgccatg	ccgaagagct	tcttcgga	300
aagggggcag	accttttatg	gtgcaatgcc	aggacatctg	tgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaagg	cgggatctac	gacataccgc	cgatcggacc	tcatattttg	420
atgtataaga	aattgacgta	a				441

<210> 45

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 45

atgattgaag	tcaaaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgcattctc	60
cggccgaatc	agccgcttga	agcatgcaag	tatgaaaccg	atttgctcgg	gggtacgttt	120
cacctcggtg	gatattacca	gggcaagctg	atcagcatcg	cttcctttca	taaagccgaa	180
cattcagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	gcttgaagga	240
taccgtgagc	aaaaagcggg	aagcacactc	atccgccatg	ccgaagagct	tcttcgga	300
aaaggcgcag	accttttatg	gtgcaacgcc	aggacatctg	tgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaggg	cgaagtctac	gacataccgc	cgatcggacc	tcatattttg	420
atgtataaga	aattgacgta	a				441

<210> 46

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 46

atgattgaag	tcaaaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgcattctc	60
cggccgaatc	agccgcttga	agcatgtatg	tatgaaaccg	atttgctcgg	gggtgcgttt	120
cacctcggtg	gatattaccg	gggcaagctg	atcagcatcg	cctcctttca	tcaagccgaa	180
cattcagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	acttgaaggg	240
taccgcgagc	aaaaagcggg	aagtacgctt	atccgccatg	ccgaagagct	tcttcgga	300
aagggggcag	accttttatg	gtgcaacgcc	aggacatctg	cgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaagg	cggggtctac	gacataccgc	cgatcggacc	tcatattttg	420

atgtataaga aattgacgta a 441

<210> 47

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 47

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttta tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgagg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgcataaga aattgacgta a 441
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<210> 48

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 48

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg aggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttta tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaaggg 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441
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<210> 49

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 49

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atgatcgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcag gaggcgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca ccaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgaggg ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441
```

<210> 50

<211> 441

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 50
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gagcacgttt 120
cacctcgggtg gatattaccg, gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactggggc ccatattttg 420
atgtataaga agttgacgta a 441

<210> 51
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 51
atgattgaag tcaaaccaat aaatgcggaa gatacgtatg agatcaggca cgcatactc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcag ggggtcggttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagaac ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg tagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagagggta ctataaaaag 360
ctcggcttca gcgaacaagg cgaagtctac gacataccgc cgactggggc ccatattttg 420
atgtataaga aattgacgta a 441

<210> 52
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 52
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg attcgctcgg gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttta tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cgggtcttac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 53
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 53
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atctgcttgg gggcacgttt 120
cacctaggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180

```

catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaag 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a

```

<210> 54

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 54

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcatactc 60
cggccgaatc agccgctaga agcatgcaag tatgaaaccg atttgctcag gggtgcggtt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagctgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcggaag 300
aagggggcag accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga agttgacgta a

```

<210> 55

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 55

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcggtt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaag 300
aaaggcgagc accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga agttgacgta a

```

<210> 56

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 56

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcggtt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaag 300
aaaggcgagg acctttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacata a

```

<210> 57

<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 57
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gagcacgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgc tcttcggaaa 300
aaggggcgag acctttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a 441

<210> 58
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 58
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagctgg cagtacgctt atccgccatg ccgaagcgc tcttcggaaa 300
aaaggcgagg acctttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gggaacaagg cggggtctac gacataccgc ctgtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 59
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 59
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgagg acctttttgtg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggac ccatattttg 420
atgtataaga aattgacgta a 441

<210> 60
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

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<400> 60
atgattgaag tcaaaccaat aaatgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttta tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcg gaccttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

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<210> 61

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

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<400> 61
atgattgaag tcaaaccaat aaatgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcg gaccttttggt gtgcaacgcc aggacatctg cgagtgggta ctataaaaag 360
ctcggcttca gcaacaagg cgaagtctac gacataccgc cgactgggac ccatattttg 420
atgtataaga aattgacgta a                                     441

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<210> 62

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

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<400> 62
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
aggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaggccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg aagcacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aaaggcgcg gaccttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcaacaagg cggggtctac gacataccgc cggccggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

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<210> 63

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

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<400> 63
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gagcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaaggg 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcg gaccttttggt gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360

```

ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 64

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 64

atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattaccg gggcaagcta gtcagcatcg cttcctttta tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatgttttg 420
atgtataaga aattgacgta a 441

<210> 65

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 65

atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
caccttggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacatgccgc cggtcggacc tcatattttg 420
atgtataaga agttgacgta a 441

<210> 66

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 66

atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cgaccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg aggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttta tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcgaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 67

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 67

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atgattgaag tcaaaccaat aaacgcggag gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag ggggtgcgttt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcct aaaacagtat cagctgagag ggatggcgac actcgaaggg 240
taccgtgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cgaccggacc tcatattttg 420
atgtataaga aattgacgta a 441
```

<210> 68

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 68

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atgattgaag tcaaaccaat aaacgcggag gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag ggggtgcgttt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcct aaaacagtat cagctgagag ggatggcgac actcgaaggg 240
taccgtgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cgaccggacc tcatattttg 420
atgtataaga aattgacgta a 441
```

<210> 69

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 69

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atgattgaag tcaaaccaat aaacgcggag gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag ggggtacgttt 120
cacctcggcgg gatattaccg gggcaagttg gtcagcatcg cctcctttca tcaagccaaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaaggg 240
taccgtgagc aaaaagcggg tagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441
```

<210> 70

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 70

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atgattgaag tcaaaccaat aaacgcagaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag ggggtgcgttt 120
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cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttaa tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagttgagag ggatggcgac acttgaagag 240
taccgtgagc aaaaagcggg aagtacgctt atccgccatg ccgaagcgct tcttcgaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

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<210> 71

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 71

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

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<210> 72

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 72

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ctgaagcgct tcttcgaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg caagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga aattgacgta a 441

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<210> 73

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 73

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtagcttt 120
cacctcgggt gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacaactg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg tgaagtcttc gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a 441

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<210> 74
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 74
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctagggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 75
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 75
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggcgcggtt 120
caccttgggtg gatattaccg gggcaagctg gtcagcatcg cctcctttta tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaga 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a 441

<210> 76
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 76
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggcgcggtt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
caccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc caactgggac ccatattttg 420
atgtataaga aattgacgta a 441

<210> 77
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence


```

<400> 77
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcgaaa 300
aaggggagc acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a                                     441

```

```

<210> 78
<211> 441
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Synthetic DNA Sequence

```

```

<400> 78
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcag gggtagcttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgagg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga agttgacgta a                                     441

```

```

<210> 79
<211> 441
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Synthetic DNA Sequence

```

```

<400> 79
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat caactgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgagg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg caaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

```

```

<210> 80
<211> 441
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Synthetic DNA Sequence

```

```

<400> 80
atgattgaag tcaaaccaat aaacgcggag gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtagcttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcgaaa 300

```

```

aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacata a                                     441

```

<210> 81

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 81

```

atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcag gggcgcgttt 120
caccttggtg gatattaccg gggcaagctg atcagcatcg tttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagcacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg acctttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggccggacc tcatattttg 420
atgtatacga aattgacgta a                                     441

```

<210> 82

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 82

```

atgattgaag ttaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcgg gggcaggttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg acctttttgtg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 83

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 83

```

atgattgaag tcaaaccaat aaacgcggaa gatacgtata agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cttcctttta tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaa 300
aaaggcgcgg acctttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 84

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 84

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga aattgacgta a                                     441
```

<210> 85

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 85

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
caccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a                                     441
```

<210> 86

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 86

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg caaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga agttgacgta a                                     441
```

<210> 87

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 87

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
```

```

cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg ggggtacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaga 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc ctgtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 88

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 88

```

atgatcgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg ggggtacgttt 120
cacctcggtg ggtactaccg gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgaggcgga agaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgctatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 89

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 89

```

atgattgaag tcaaacctat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg ggggtacgttt 120
cacctcggtg gatattacca gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagggc ttgaggcgga agaacagtat cagctgagag ggatggcgac gctcgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaatgcc aggacatctg tgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 90

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 90

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atgattgacg tcaaacctat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattacca gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 91
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 91
atgattgaag tcaaaccaat aagcgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg ggggtgcgttt 120
cacctcgggtg gatattacca gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg tgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 92
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 92
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacggttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca taaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcaac gcttgaagga 240
taccgtgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a 441

<210> 93
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 93
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg ggggtacgttt 120
cacctcgggtg gatattaccg gggcaagctg atctgcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagagggta ctatgaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcgta a 441

<210> 94
<211> 441
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 94

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ctgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattacca gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctc atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagcggcta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
```

<210> 95

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 95

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattacca gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcgaaa 300
aagggggtag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cgggatctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a                                     441
```

<210> 96

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 96

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgagc accttttatg gtgcaacgcc aggacatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
```

<210> 97

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 97

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattacca gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagga 240
```

```
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
```

<210> 98

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 98

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga ggcattgtatg tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattacca gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tctccgaaaa 300
aaaggcgcgg accttttatg gtgcaatgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccac cgatcggacc tcatattttg 420
atgtataaga aattggcata a                                     441
```

<210> 99

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 99

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattatcg ggacaggctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcgaaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aactgacgta a                                     441
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<210> 100

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 100

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cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggatatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a                                     441
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<210> 101

<211> 441

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 101
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga ggcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
catctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctttttatg gtgcaatgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a 441

<210> 102
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 102
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgtattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg ggggtacgttt 120
cacctcggcg gatattatcg ggacaggctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 103
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 103
atgattgaag tcaaaccgat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg ggggtacgttt 120
cacctcgggtg gatattacca gggcaagctg atcagcaccg cttcctttca tcaagccgga 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc gaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctttttatg gtgcaacgcc aggatatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 104
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 104

atgattgaag	tcaaaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgcattctc	60
cggccgaatc	agccgcttga	agcatgtatg	tttgaaaccg	atttgctcgg	gggtgcgttt	120
cacctcggtg	gatattacca	gggcaagctg	atcagcatcg	cttcctttca	tcaagccgaa	180
cattcagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	gcttgaaggg	240
taccgcgagc	aaaaagcggg	cagtacgctt	atccgccatg	ccgaagagct	tcttcggaag	300
aaaggcgcag	acctttttatg	gtgcaacgcc	aggacatctg	tgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaggg	cgaagtctac	gacataccgc	cgatcggacc	tcatattttg	420
atgtataaga	aattgacgta	a				441

<210> 105

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 105

atgattgaag	tcagaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgtattctc	60
cggccgaatc	agccgcttga	agcatgtatg	tatgaaaccg	atttgctcgg	gggcacgttt	120
cacctcggtg	gatattaccg	gggcaagctg	atcagcatcg	cctcctttca	tcaagccgaa	180
cattcagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	acttgaagga	240
taccgtgagc	aaaaagcggg	cagtacgctt	atccgccatg	ccgaagagct	tcttcggaag	300
aaaggggcag	acctttttatg	gtgcaacgcc	aggacatctg	cgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaggg	cgaagcctac	gacataccgc	cgatcggacc	tcatattttg	420
atgtataaga	aattgacgta	a				441

<210> 106

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 106

atgattgaag	tcaaaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgcattctc	60
cggccgaatc	agccgcttga	agcatgtatg	tatgaaaccg	atttgctcgg	gggtacgttt	120
cacctcggtg	gatattaccg	gggcaagctg	atcagcatcg	cctcctttca	tcaagccgaa	180
cattcagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	gcttgaaggg	240
taccgcgagc	aaaaagcggg	cagtacgctt	atccgccatg	ccgaagagct	tcttcggaag	300
aaaggcgcgg	acctttttatg	gtgcaacgcc	aggacatctg	cgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaagg	cggggtctac	gacataccgc	cgatcggacc	ccatattttg	420
atgtataaga	aattgacgta	a				441

<210> 107

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 107

atgattgaag	tcaaaccaat	aaacgcggaa	gatacgtatg	agatcaggca	ccgcattctc	60
cggccgaatc	agccgcttga	agcatgtatg	tatgaaaccg	atttgctcgg	gggcacgttt	120
cacctcggtg	gatattaccg	gggcaagctg	atcagcatcg	cctcctttca	tcaagccgaa	180
cattcagagc	ttgaaggcca	aaaacagtat	cagctgagag	ggatggcgac	acttgaaggg	240
taccgcgagc	aaaaagcggg	aagtacgctt	atccgccatg	ccgaagagct	tcttcggaag	300
aaaggggcag	acctttttatg	gtgcaacgcc	aggacatctg	cgagcgggta	ctataaaaag	360
ctcggcttca	gcgaacaggg	cgaagtctac	gacataccgc	cgatcggacc	tcatattttg	420

atgtataaga aattgacgta a 441

<210> 108

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 108

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgtattctc 60
cggccgaatc agccgctgga agcatgtatg tacgaaaccg atttgctcgg gggcgctgtt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tccagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgctg accttttatg gtgcaacgcc aggatatctg cgagcgggta ctatgaaaag 360
ctcggcttca gcaaacaggg cgaagtctac gacataccgc cgatcggacc ccatattttg 420
atgtataaga aattgacgta a 441
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<210> 109

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 109

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggcgctg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctatgaaaag 360
ctcggcttca gcaaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441
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<210> 110

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 110

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgtattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggatatctg cgagcgggta ctataaaaag 360
ctcggcttca gcaacaagg cgggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441
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<210> 111

<211> 441

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 111
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgggc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 112
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 112
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgtattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattatca ggacaggctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgctatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggatatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 113
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 113
atgattgaag tcaaacctat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg ggggtacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 114
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 114
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattatcg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180

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cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgagc acctttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 115

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 115

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atgattgaag tcaaacctat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgagg acctttttgtg gtgcaacgcc aggatatctg cgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

```

<210> 116

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 116

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ttacgtcaat ttcttataca taaaaatatg aggtccgata ggcggtatgt cgtagacttc 60
gccctgttcg ctgaagccga gctttttata gtaccgcgtc gcagatgtcc tggcggttgca 120
ccataaaagg tccgcgcctt ttttcggaag aagctcttcg gcatggcgga tgagcgtgct 180
tcccgccttt tgctcgcggg acccttcaag cgctgccatc cctctcagct gatactgttt 240
ttggccttca agctctgaat gttcggcttg atgaaaggag gcgatgctga tcagcttgcc 300
ccggtaatat ccaccgaggt gaaacgtgcc cccgagcaaa tcagtttcat acttgcattc 360
ttccagcggc tgattcggcc ggagaatgag gtgcctgata tcatacgtat cttccgcgtt 420
tattgggttg gcttcaatca t                                     441

```

<210> 117

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 117

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

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<210> 118

<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 118
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgag 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaggggcgag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a 441

<210> 119
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 119
atgattgaag tcaatccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgtct 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgatggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgagc accttttatg gtgcaacgcc aggacatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 120
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 120
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cgggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a 441

<210> 121
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

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<400> 121
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcgctgtt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaatccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc taaaagcggg aagtagcgtt atccgccatg ccgaagagct tcttcggaag 300
aaaggcgcgg acctttttatg gtgcaacgcc aggatatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

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<210> 122
<211> 441
<212> DNA
<213> Artificial Sequence

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<220>
<223> Synthetic DNA Sequence

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```

<400> 122
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaag 300
aaaggcgcgg acctttttatg gtgcaacgcc aggatatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

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<210> 123
<211> 441
<212> DNA
<213> Artificial Sequence

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<220>
<223> Synthetic DNA Sequence

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<400> 123
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtagcgtt atccgccatg ccgaagagct tcttcggaag 300
aagggggcag acctttttatg gtgcaacgcc aggatatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac ggcataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a 441

```

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<210> 124
<211> 441
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Synthetic DNA Sequence

```

```

<400> 124
atgattgaag ccaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaactg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaag 300
aaaggcgcgg acctttttatg gtgcaacgcc aggatatctg cgagcgggta ctataaaaag 360

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ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
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<210> 151

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 151

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atgtataaga aattgacgta a                                     441

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<210> 152
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<220>
<223> Synthetic DNA Sequence

<400> 152
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atgtataaga aattgacata a 441

<210> 153
<211> 441
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<220>
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<400> 153
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atgtataaga aattgacgta a 441

<210> 154
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<220>
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aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctatgaaaag 360
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atgtataaga aattgacata a 441

<210> 155
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<220>

<223> Synthetic DNA Sequence

<400> 155

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atgtataaga aattgacgta a                                     441
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<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 156

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atgtataaga aattgacgta a                                     441
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<210> 157

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 157

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cacctcggcg gatattaccg gggcaagcta atcagcatcg cttcctttca tcaagccgaa 180
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atgtataaga aattgacgta a                                     441
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<220>

<223> Synthetic DNA Sequence

<400> 158

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cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
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atgtataaga aattgacgta a                                     441
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<223> Synthetic DNA Sequence

<400> 159

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cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
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taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
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<210> 160

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<212> DNA

<213> Artificial Sequence

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<223> Synthetic DNA Sequence

<400> 160

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cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
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aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441
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<210> 161

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 161

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atgtataaga aattgacgta a                                     441
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<211> 441

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cacctcgggtg gatattaccg gggcaagctg gtctgcatcg cttcctttca taaagccgaa 180
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atgtataaga aattgacgta a 441

<210> 163
<211> 441
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<220>
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atgtataaga aattgacgta a 441

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ctcggcttca gcgaacaagg cgggtcttac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a                                     441

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<210> 171

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atgtataaga aattgacgta a 441

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atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaactg atttgctcgg gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgcgagc aaaaagcggg cagtacgcta atccgccatg ccgaagagct tcttcggaag 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgatcaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

```

<210> 177

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 177

```

atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agataaggca cgcattcctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaag 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacttaccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a 441

```

<210> 178

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 178

```

atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgctt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcattg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgggc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaag 300
aagggggcag accttttatg gtgcaatgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

```

<210> 179

<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 179
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcgattctc 60
aggccgaatc agccgctaga agcatgcaag tatgaaaccg atttgctcag ggggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgt tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a 441

<210> 180
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 180
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcgattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaactg atttgctagg ggggtacgctt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggcgcgg accttatatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacata a 441

<210> 181
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 181
atgattgaag tcaaaccaat aaatgcggaa gatacgtatg agatcaggca cgcgattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg aggcacgttt 120
cacctagggtg gatattaccg gggcaagctg atcagcatcg cttcctttta tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacata a 441

<210> 182
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

```

<400> 182
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actagaaggg 240
taccgcgagc aaaaagcggg cagtacgctc atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaacgcc agaacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a 441

```

<210> 183

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

```

<400> 183
atgattgaag tcaaaccaat aaacgcggaa gatgcgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gagcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc ctgtcggacc tcatattttg 420
atgtataaga aattgacgta a 441

```

<210> 184

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

```

<400> 184
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagaggcta ctatgaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcgta a 441

```

<210> 185

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

```

<400> 185
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgttgga agcatgcaag tatgaaaccg atttgctcgg gggtagcttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgaggcgga agaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagcgggta ctataaaaag 360

```


ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 186

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 186

atgatagaag tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgactcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acatgctttg gtgcaatgcg cggacaaccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441

<210> 187

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 187

atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgactcta attaaacacg ctgaacaact tcttcgtaag 300
aggggggcgg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa agatcaca 438

<210> 188

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 188

atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attaaacacg ctgaacaact tcttcgtaag 300
aggggggcgg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcaca 438

<210> 189

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 189

```
atgctagagg tgaaactgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgttaga agcgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tttcgtgatc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcga acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcaca                                438
```

<210> 190

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 190

```
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcaca                                438
```

<210> 191

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 191

```
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agcgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcaggcc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtata attaaacacg ctgaagaaat tcttcgtaag 300
aagggggcgg acttgctttg gtgcaatgcg cggacgtccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gacacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcaca                                438
```

<210> 192

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 192

```
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
```

```

cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgactcta attagacacg ctgaacaact tcttcgtaag 300
aggggggcgg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaagg 360
ttaggcttca gcgagcaggg agaggtatth gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcaca                                     438

```

<210> 193

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 193

```

atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tgggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaagg 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a                                     441

```

<210> 194

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 194

```

atgatagaag tgaaaccgat taacgcagag gagacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attagacacg ctgaacaact tcttcgtaag 300
aagggggcga atatgctttg gtgtaatgcg cggacaaccg cctcaggcta ctacaaaagg 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcaca                                     438

```

<210> 195

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 195

```

atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tttcgtgagc agaaagcggg atcgagtcta attagacacg ctgaacaact tcttcgtaag 300
aggggggcgg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaagg 360
ttaggcttca gcgagcaggg aaaggtatth gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcaca                                     438

```

<210> 196
<211> 438
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 196
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaagg 240
tatcgtgagc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcaca 438

<210> 197
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 197
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca cgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgctt 120
cacctcgggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatatctt 420
atgtataaga aattgacgta a 441

<210> 198
<211> 438
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 198
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tgggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaagg 240
tttcgtgagc agaaagcggg atcgactcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcaca 438

<210> 199
<211> 438
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

```

<400> 199
atgatatagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgactcta attagacacg ctgaagaaat tcttcgtaag 300
aagggggcga acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagggtattt gacacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcaca                                438

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<210> 200

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<221> misc_feature

<222> 134, 313

<223> n = A,T,C or G

<400> 200

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atgatatagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctntttacg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acntgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a                                441

```

<210> 201

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 201

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atgatatagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgactcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a                                441

```

<210> 202

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 202

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atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60

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cactcagaac	tccaaggcca	gaaacagtac	cagctccgag	gtatggctac	cttggaaggt	240
tatcgtgagc	agaaagcggg	atcgagtcta	attagacacg	ctgaagaaat	tcttcgtaag	300
aggggggcgg	acatgctttg	gtgtaatgcg	cggacatccg	cctcaggcta	ctacaaaaag	360
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atgtataaaa	ggctcacata	a				441

<210> 203

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 203

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cacttaggcg	gcttttacag	gggcaaactg	atttccatag	cttcattcca	ccaggccgag	180
cactcagaac	tccaaggcca	gaaacagtac	cagctccgag	gtatggctac	cttggaaggt	240
tttcgtgagc	agaaagcggg	atcgagtcta	attagacacg	ctgaacaaat	tcttcgtaag	300
aggggggcgg	acttgctttg	gtgtaatgcg	cggacatccg	cctcaggcta	ctacaaaaag	360
ttaggcttca	gcgagcaggg	agagatattt	gatacgccgc	cagtaggacc	tcacatcctg	420
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<210> 204

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 204

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cacttaggcg	gctattacag	gggcaaactg	atttccatag	cttcattcca	ccaggccgag	180
cactcagaac	tccaaggcca	gaaacagtac	cagctccgag	gtatggctac	cttggaaggt	240
taccgcgatac	agaaagcggg	atcgagtcta	attagacacg	ctgaacaaat	tcttcgtaag	300
aggggggcgg	acttgctttg	gtgtaatgcg	cggacatccg	cctcaggcta	ctacaaaaag	360
ttaggcttca	gcgagcaggg	agagatattt	gatacgccgc	cagtaggacc	tcacatcctg	420
atgtataaaa	ggctcacata	a				441

<210> 205

<211> 441

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<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 205

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cacttaggcg	gcttttacag	gggcaaactg	atttccatag	cttcattcca	ccaggccgag	180
cactcagaac	tccaaggcca	gaaacagtac	cagctccgag	gtatggctac	cttggaaggt	240
tatcgtgagc	agaaagcggg	atcgagtcta	attaaacacg	ctgaagaaat	tcttcgtaag	300
aggggggcgg	acttgctttg	gtgcaatgcg	cggacatccg	cctcaggcta	ctacaaaaag	360
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atgtataaaa	ggatcacata	a				441

<210> 206
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<220>
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<400> 206
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cacttaggcg gctttttacag gggcaaactg atttccatag cgtcattcca ccaggccgag 180
cacccagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgacg agaaagcggg atcgagtcta attaaacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441

<210> 207
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<220>
<223> Synthetic DNA Sequence

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cacttaggcg gctttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac caactccgag gtatggctac cttggaaggt 240
tttcgtgacg agaaagcggg atcgactcta attagacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaagg 360
ttaggcttca gcgagcaggg agagatattt gacacgccgc cagtagggcc tcacatcctg 420
atgtataaaa ggctcacata a 441

<210> 208
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 208
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cacttaggcg gctattacag gggcaaactg atttccatag cgtcattcca ccaggccgag 180
cactcggaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgacg agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
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atgtataaaa ggtcacata a 441

<210> 209
<211> 441
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 209

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cacttgggcg gctttttacgg gggcaaactg atttccatag cgtcattcca ccaggccgag 180
caccagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaact tcttcgtaag 300
aggggggagg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattc gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441
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<210> 210

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 210

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cacttaggag gctattacag gggcaaactg atttccatag cgtcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggagg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gacacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441
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<210> 211

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 211

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cacttaggag gctttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgactcta attagacacg ctgaagaaat tcttcgtaag 300
aggggggagg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441
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<210> 212

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 212

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cacttaggag gctttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
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tatcgtgagc	agaaagcggg	atcgagtcta	attaaacacg	ctgaacaaat	tcttcgtaag	300
aggggggcgg	acttgctttg	gtgcaatgcg	cggacatccg	cctcaggcta	ctacaaaaag	360
ttaggcttca	gcgagcaggg	agaggtattt	gatacgccgc	cagtaggacc	tcacatcctg	420
atgtataaaa	ggctcacata	a				441

<210> 213

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 213

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cacttaggcg	gcttttacgg	gggcaaactg	atttccatag	cttcattcca	ccaggccgag	180
cactcagaac	tccaaggcca	gaaacagtac	cagctccgag	gtatggctac	cttggaaggt	240
tatcgtgatc	agaaagcggg	atcgagtcta	attaaacacg	ctgaagaaat	tcttcgtaag	300
aggggggcgg	acttgctttg	gtgtaatgcg	cggacatccg	cctcaggcta	ctacaaaaag	360
ttaggcttca	gcgagcaggg	agaggtattt	gaaacgccgc	cagtaggacc	tcacatcctg	420
atgtataaaa	ggctcacata	a				441

<210> 214

<211> 438

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<213> Artificial Sequence

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<223> Synthetic DNA Sequence

<400> 214

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catttggggcg	ggttctatcg	tgGCCAATTG	atctcgattg	cgagtttcca	caaagctgaa	180
cactcagaac	tgcaagggca	aaagcagtat	caattacgag	ggatggcgac	cctcgaagga	240
ttccgtgagc	agaaggctgg	ctcttcgctt	attaggcacg	ccgaggagat	actacggaaat	300
aaaggggcag	atctgctttg	gtgtaatgca	cgcacgacag	cctccgggta	ctataaaaag	360
cttggtttta	gtgagcacgg	cgaagttttc	gaaaccccgc	cggttggggc	gcacattctt	420
atgtacaaaa	gaatcact					438

<210> 215

<211> 438

<212> DNA

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<220>

<223> Synthetic DNA Sequence

<400> 215

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catttggggcg	ggttctatcg	tgGCCAATTG	atctcgattg	cgagtttcca	ccaagctgaa	180
cactcagaac	tggaagggca	aaagcagtat	caattacgag	ggatggcgac	cctcgaagga	240
ttccgtgagc	agaaggctgg	ctcttcgctt	attaggcacg	ccgaggagat	actacggaaa	300
agaggggcag	atctgctttg	gtgtaatgca	cgcacgacag	ccgccgggta	ctataaaaag	360
cttggtttta	gtgagcaggg	cgaatttttc	gacaccccgc	cggttggggc	gcacattctt	420
atgtacaaaa	gaatcact					438

<210> 216

<211> 438

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 216
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catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagacc tggaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgac agaaggctgg ctcttcgctt attaggcacg ccgagcagat actacggaaa 300
agaggggcag atctgctttg gtgcaatgca cgcacgacag ccgccgggta ctataaaaagg 360
cttggtttta gtgagcaggg cgaagttttc gacaccccg cggttgggccc gcacattctt 420
atgtacaaaa aactcact 438

<210> 217
<211> 438
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 217
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catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cagtcagaac tggaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgac agaaggctgg ctctacgctt attaagcacg ccgaggagat actacggaaa 300
aaaggggcag atctgctttg gtgcaatgca cgcacgacg ccgccgggta ctataaaaagg 360
cttggtttta gtgagcaggg cgaaattttc gacaccccg cggttgggccc gcacattctt 420
atgtacaaaa gactcact 438

<210> 218
<211> 438
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 218
atgatagaag tgaaacctat taacgcagag gagacttacg aacttcgaca caagatcctg 60
cgccctaatac agccgttaga ggcatgcatg tatgaaaccg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagaac tggaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
ttccgtgac agaaggctgg ctcttcgctt attaagcacg ccgaggagat actacggaaa 300
agaggggcag atctgctttg gtgcaatgca cgcacgacg cctccgggta ctataaaaagg 360
cttggtttta gtgagcaggg cgaaattttc gaaaccccg cggttgggccc gcacattctt 420
atgtacaaaa gactcact 438

<210> 219
<211> 438
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 219

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catttgggcg	ggttctatcg	tggaacattg	atctcgattg	cgagtttcca	ccaagctgaa	180
cactcagacc	tgcaagggca	aaagcagtat	caattacgag	ggatggcgac	cctcgaagga	240
taccgtgagc	agaaggctgg	ctctacgctt	attaagcacg	ccgaggagct	actacggaaa	300
aaaggggagc	atctgctttg	gtgcaatgca	cgcacgacag	ccgccgggta	ctataaaaag	360
cttggtttta	gtgagcaggg	cgaagttttc	gacaccccg	cggttggggc	gcacattctt	420
atgtacaaaa	aatcact					438

<210> 220

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 220

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catttgggcg	ggttctatcg	tggaacattg	atctcgattg	cgagtttcca	caaagctgaa	180
cactcagaac	tgcaagggca	aaagcagtat	caattacgag	ggatggcgac	cctcgaagga	240
taccgtgagc	agaaggctgg	ctcttcgctt	attaggcacg	ccgaggagat	actacggaaa	300
agaggggagc	atatgctttg	gtgcaatgca	cgcacgtcag	ccgccgggta	ctataaaaag	360
cttggtttta	gtgagcaggg	cgaagttttc	gacaccccg	cggttggggc	gcacattctt	420
atgtacaaaa	gaatcactta	a				441

<210> 221

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 221

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catttgggcg	ggttctatcg	tggaacattg	atctcgattg	cgagtttcca	ccaagctgaa	180
cactcagacc	tgcaagggca	aaagcagtat	caattacgag	ggatggcgac	cctcgaagga	240
taccgtgagc	agaaggctgg	ctcttcgctt	attaagcacg	ccgagcagct	actacggaaa	300
aaaggggagc	atatgctttg	gtgtaatgca	cgcacgtcag	ccgccgggta	ctataaaaag	360
cttggtttta	gtgagcacgg	cgaatttttc	gaaaccccg	cggttggggc	gcacattctt	420
atgtacaaaa	gaatcact					438

<210> 222

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 222

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catttgggcg	ggttctatcg	tggaacattg	atctcgattg	cgagtttcca	ccaagctgaa	180
cattcagaac	tggaagggca	aaagcagtat	caattacgag	ggatggcgac	tctcgaagga	240
taccgtgagc	agaaggctgg	ctcttcgctt	attaggcacg	ccgaggagat	actacggaaa	300
agaggggagc	atatgctttg	gtgcaatgca	cgcacgacag	ccgccgggta	ctataaaaag	360
cttggtttta	gtgagcaggg	cgaattttac	gacaccccg	cggttggggc	gcacattctt	420

atgtacaaaa aactcact

438

<210> 223

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 223

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cgccctaatac agccgttaga ggcatgcatg tatgaaaccg atctgctgcg gggcgcggttc 120
catttgggcyg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgac 180
cactcagaac tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaggcacg ccgagcagat actacggaaa 300
agaggggcag atctactttg gtgcaatgca cgcacgtcag ccgccgggta ctataaaaag 360
cttggtttta gtgagcacgg cgaaattttc gaaaccccg cggttgggcc gcacattctt 420
atgtacaaaa gactcactta a                                     441
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<210> 224

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 224

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cgccctaatac agccgataga ggcatgcatg tatgaaagcg atctgctgcg gggcgcggttc 120
catttgggcyg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagacc tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctcttcgctt attaggcacg ccgaggagat actacggaaa 300
aaaggggcag atatgctttg gtgcaatgca cgcacgacag ccgccgggta ctataaaaag 360
cttggtttta gtgagcaggg cgaagttttc gacaccccg cggttgggcc gcacattctt 420
atgtacaaaa gaatcact                                     438
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<210> 225

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 225

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agaccxaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgcaatgcy cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a                                     441
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<210> 226

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 226

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cgccctaatac agccgataga ggcatacatg tatgaaagcg atctgctgcg gggctcgttc 120
catttggggcg ggttctatcg tggccaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagaac tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaagcacg ccgaggagat actacggaaa 300
aaaggggcag atctgctttg gtgcaatgca cgcacgtcag ccgccgggta ctataaaagg 360
cttggtttta gtgagcacgg cgaaattttc gacaccccg cggttggggc gcacattctt 420
atgtacaaaa gaatcact                                     438
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<210> 227

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 227

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atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caggatcctg 60
cgccctaatac agccgataga ggcatacatg tatgaaaccg atctgctgcg gggcgcggttc 120
catttggggcg ggtactatcg tggccaattg atctcgattg cgagtttcca caaagctgaa 180
cactcagaac tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaagcacg ccgagcagct actacgggaa 300
aaaggggcag atatgctttg gtgcaatgca cgcacgtcag ccgccgggta ctataaaagg 360
cttggtttta gtgagcacgg cgaagttttc gacaccccg cggttggggc gcacattctt 420
atgtacaaaa aactcact                                     438
```

<210> 228

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 228

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atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caagatcctg 60
cgccctaatac agccgataga ggcatacatg tatgaaagcg atctgctgcg gggctcgttc 120
catttggggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca caaagctgaa 180
cactcagacc tggaagggca aaaccagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaggcacg ccgaggagat actacggaaa 300
agaggggcag atatgctttg gtgcaatgca cgcacgtcag cctccgggta ctataaaagg 360
cttggtttta gtgagcacgg cgaaattttc gacaccccg cggttggggc gcacattctt 420
atgtacaaaa gactcactta a                                     441
```

<210> 229

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 229

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atgctagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caggatcctg 60
cgccctaatac agccgataga ggcatacatg tatgaaaccg atctgctgcg gggctcgttc 120
catttggggcg ggttctatcg tggccaattg atctcgattg cgagtttcca caaagctgaa 180
```

cactcagacc	tggaagggca	aaagcagtat	caattacgag	ggatggcgac	cctcgaagga	240
taccgtgagc	agaaggctgg	ctctacgctt	attaggcacg	ccgagcagat	actacggaaa	300
agaggggcag	atatgctctg	gtgcaatgca	cgcacgtcag	ccgccgggta	ctataaaaagg	360
cttggtttta	gtgagcaggg	cgaagttttc	gaaaccccg	cggttggggc	gcacattctt	420
atgtacaaaa	gactcact					438

<210> 230

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 230

atgatagaag	tgaaacctat	taacgcagag	gatacttacg	aacttcgaca	caggatcctg	60
cgccctaatac	agccgttaga	ggcatgcatg	tatgaaaccg	atctgctgcg	gggctcgttc	120
catttggggcg	ggttctatcg	tggaacattg	atctcgattg	cgagtttcca	ccaagctgaa	180
cactcagacc	tgcaagggca	aaagcagtat	caattacgag	ggatggcgac	cctcgaagga	240
taccgtgagc	agaaggctgg	ctctacgctt	attaggcacg	ccgagcagct	actacggaaa	300
agaggggcag	atctgctttg	gtgcaatgca	cgcacgtcag	cctccgggta	ctataaaaagg	360
cttggtttta	gtgagcacgg	cgaagttttc	gacaccccg	cggttggggc	gcacattctt	420
atgtacaaaa	gactcact					438

<210> 231

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 231

atgctagaag	tgaaacctat	taacgcagag	gagacttacg	aacttcgaca	caagatcctg	60
cgccctaatac	agccgttaga	ggcatgcatg	tatgaaagcg	atctgctgcg	gggctcgttc	120
catttggggcg	ggtactatcg	tggaacattg	atctcgattg	cgagtttcca	ccaagctgaa	180
cactcagaac	tggaagggca	aaagcagtat	caattacgag	ggatggcgac	cctcgaagga	240
ttccgtgagc	agaaggctgg	ctctacgctt	attaagcacg	ccgagcagat	actacggaaa	300
agaggggcag	atatgctttg	gtgcaatgca	cgcacgtcag	ccgccgggta	ctataaaaagg	360
cttggtttta	gtgagcacgg	cgaatttttc	gacaccccg	cggttggggc	gcacattctt	420
atgtacaaaa	aactcactta	a				441

<210> 232

<211> 438

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 232

atgatagaag	tgaaacctat	taacgcagag	gagacttacg	aacttcgaca	caggatcctg	60
cgccctaatac	agccgataga	ggcatgcatg	tatgaaagcg	atctgctgcg	gggctcgttc	120
catttggggcg	ggttctatcg	tggaacattg	atctcgattg	cgagtttcca	ccaagctgaa	180
cactcagacc	tagaagggca	aaagcagtat	caattacgag	ggatggcgac	cctcgaagga	240
taccgtgagc	agaaggctgg	ctctacgctt	attaagcacg	ccgaggagct	actacggaaa	300
agaggggcag	atatgctttg	gtgcaatgca	cgcacgtcag	ccgccgggta	ctataaaaagg	360
cttggtttta	gtgagcacgg	cgaattttac	gaaaccccg	cggttggggc	gcacattctt	420
atgtacaaaa	aaatcact					438

<210> 233

<211> 438
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 233
atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caagatcctg 60
cgccctaadc agccgataga ggcattgatg tatgaaagcg atctgctgcg gggctcgttc 120
catttgggag gggtctatcg tggccaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagacc tggaaggcca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgatc agaaggctgg ctcttcgctt attaagcacg ccgaggagat actacggaaa 300
agaggggagc atctgctttg gtgcaatgca cgcacgtcag ccgcccgtta ctataaaagg 360
cttggtttta gtgagcaggg cgaaattttc gacaccccg cggttggggc gcacattctt 420
atgtacaaaa aaatcact 438

<210> 234
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 234
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta gttaaacacg ctgaagaaat tcttcgtaag 300
aggggggagc acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441

<210> 235
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 235
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggagc acttgctttg gtgtaatgcg cggacgtccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441

<210> 236
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

```

<400> 236
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441

```

<210> 237

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

```

<400> 237
atgatagaag tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tgggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441

```

<210> 238

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

```

<400> 238
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tgggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
caccagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441

```

<210> 239

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

```

<400> 239
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tgggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360

```


ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441

<210> 240

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 240

atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaac agccgataga agtgtgtatg tatgaaacgc atttacttcg tgggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441

<210> 241

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 241

atgatagaag tgaaacctat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaac agccgataga agtgtgtatg tatgaaacgc atttacttcg tgggtgcattt 120
cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgac agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441

<210> 242

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 242

atgatagaag tgaaacctat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaac agccgttaga agtgtgtatg tatgaaacgc atttacttcg tgggtgcattt 120
cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgac agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acatgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441

<210> 243

<211> 441

<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<221> misc_feature
<222> 9, 76, 98
<223> n = A,T,C or G

<400> 243
atgctagang tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgntaga agtgtgtatg tatgaaancg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaagg 240
tatcgtgatc agaaagcggg atcgagtcta attaaacacg ctgaacaaat tcttcgtgag 300
agggggggcg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtatth gacacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441

<210> 244
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 244
atgctagaag tgaaacctat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgtaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaagg 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
agggggggcg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatatth gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441

<210> 245
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 245
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacag gggcaaactg atttccatag cgtcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaagg 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
agggggggcg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacagaaag 360
ttaggcttca gcgagcaggg agaggtatth gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441

<210> 246
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

```

<400> 246
atgatatagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatac agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
agggggggcg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg ggaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441

```

<210> 247

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

```

<400> 247
atgatatagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatac agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
agggggggcg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441

```

<210> 248

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

```

<400> 248
atgatatagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatac agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
agggggggcg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441

```

<210> 249

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

```

<400> 249
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcggacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatac agaaagcggg atcgagtcta attagacacg ctgaagaaat tcttcgtaag 300

```

```

aggggggscgg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtatth gacacgccgc cagtaggacc tcacatcctg 420
atgtataaaa agatcacata a 441

```

<210> 250

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 250

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atgctagaag tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgactcta attaaacacg ctgaacaaat tcttcgtaag 300
aggggggscgg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtatth gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441

```

<210> 251

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 251

```

atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggscgg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatatth gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a 441

```

<210> 252

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 252

```

atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagagtactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggscgg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtatth gagacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacgta a 441

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<210> 253

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 253

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atgctagagg tgaaaccgat taacgcagag gatacttacg aactaaggca taaaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attagacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacgta a 441
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<210> 254

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 254

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atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441
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<210> 255

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 255

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atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tgggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attagacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a 441
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<210> 256

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 256

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cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcataattttg 420
atgtataaga aattgacgta a                                     441

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<210> 257

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 257

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cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatttg tgagcgggta ctatgaaaag 360
ctcggtttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc ttataattttg 420
atgtattaga aattgacata a                                     441

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<210> 258

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 258

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cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg tagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctgc gatataccgc cgatcggacc tcataattttg 420
atgtataaga aattggcata a                                     441

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<210> 259

<211> 441

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 259

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cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcataattttg 420
atgtataaga aattgacata a                                     441

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<210> 260
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 260
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cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgagc accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 261
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 261
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cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgagc accttttatg gtgcaacgcc aggacatctg tgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctgc gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a 441

<210> 262
<211> 441
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic DNA Sequence

<400> 262
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcgggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a 441

<210> 263
<211> 146
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 263

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
145															

<210> 264

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 264

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Arg	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
145															

<210> 265

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 265

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Ser	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	Asn	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 266

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 266

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Thr	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 267

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 267

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70				75						80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Ala
				85				90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Thr	Pro	Pro	Ala	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 268

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 268

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70				75						80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85				90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 269

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 269

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Leu	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 270

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 270

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Arg	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 271

<211> 146

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 271
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His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 272
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 272
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Arg Gly
35 40 45
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 273

<211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 273
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
 115 120 125
 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 274
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 274
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Arg Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 275
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 275
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
 115 120 125
 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 276
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 276
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 277
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 277
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 278
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 278
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 279
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 279
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 280
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 280
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr

145

<210> 281
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 281
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 282
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 282
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
115 120 125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140

Leu Thr
145

<210> 283
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 283
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
115 120 125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 284
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 284
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Gly
115 120 125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys

130
Leu Ala
145

135

140

<210> 285
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 285
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Gln Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Val Arg Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Gly
115 120 125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 286
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 286
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125

Val His Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 287
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 287
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 288
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 288
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly

Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
145															

<210> 291
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 291															
Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
145															

<210> 292
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 292															
Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr

			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115					120					125					
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
		130				135					140						
Leu	Thr																
145																	

<210> 293

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 293

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg		
1				5					10					15			
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu		
			20					25					30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40						45					
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu		
		50				55					60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65					70				75					80			
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Ala		
				85					90					95			
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115					120					125					
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
		130				135					140						
Leu	Thr																
145																	

<210> 294

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 294

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg		
1				5					10					15			
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu		
			20					25					30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40						45					
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu		
		50				55					60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65					70				75					80			
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
				85					90					95			

Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 295

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 295

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70						75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85						90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 296

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 296

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gln	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Lys	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70						75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu

				85					90					95			
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly		
		115					120					125					
Ile	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
	130					135					140						
Leu	Thr																
145																	

<210> 297
 <211> 146
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			20				25						30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gln	Gly		
		35				40						45					
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Lys	Ala	Glu	His	Ser	Glu	Leu		
	50					55					60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65				70					75					80			
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
				85					90					95			
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115				120						125					
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
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			20				25						30				
Thr	Asp	Leu	Leu	Gly	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40						45					
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu		
	50					55					60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65				70					75					80			

Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	Asn	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105					110			
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120					125				
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	His	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Ser	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
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Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	Asn	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly

65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Arg	Ser	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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			20				25					30			
Thr	Asp	Leu	Leu	Gly	Ser	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				

Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85						90				95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
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			20				25						30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Arg	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
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			20				25						30		
Thr	Asp	Ser	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	Asn	Gln	Ala	Glu	His	Pro	Glu	Leu

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Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly				
65		70		75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Gly				80
	85		90	
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr				95
	100		105	
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly				110
	115		120	
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys				125
	130		135	
Leu Thr				140
145				

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His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

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20 25 30
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45

Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
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 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

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 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly

Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
		50					55				60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Ala
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Arg	Glu	Gln	Gly	Gly
		115						120					125		
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85						90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu

		20						25					30				
Thr	Asp	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly			
		35					40				45						
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	Asn	Gln	Ala	Glu	His	Pro	Glu	Leu		
		50					55				60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65					70					75					80		
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
				85					90					95			
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly		
		115					120					125					
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
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Leu	Thr																
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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg		
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			20				25					30					
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40					45						
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu		
		50				55					60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65					70					75					80		
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
				85					90					95			
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115					120					125					
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
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Leu	Thr																
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<211> 146

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg		
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Ala
				85				90						95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ala	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
145															

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			20					25					30		
Thr	Asp	Leu	Leu	Gly	Ser	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85				90						95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
145															

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1	5	10	15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu			
20	25	30	
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly			
35	40	45	
Lys Leu Val Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu			
50	55	60	
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly			
65	70	75	80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu			
85	90	95	
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr			
100	105	110	
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu			
115	120	125	
Val Tyr Asp Thr Pro Pro Val Gly Pro His Val Leu Met Tyr Lys Lys			
130	135	140	
Leu Thr			
145			

<210> 317

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 317

Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg	
1	5
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu	
20	25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly	
35	40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu	
50	55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly	
65	70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu	
85	90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr	
100	105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly	
115	120
Val Tyr Asp Met Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys	
130	135
Leu Thr	
145	

<210> 318

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 318

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	Asn	Gln	Ala	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Ala
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Leu	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Thr	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

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His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Arg Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Thr Pro Pro Ala Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 321
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 321
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
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His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Lys His Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 322
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 322

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Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1           5           10           15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
          20           25           30
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
          35           40           45
Lys Leu Ile Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
          50           55           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
65           70           75           80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
          85           90           95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
          100          105          110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
          115          120          125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130           135           140
Leu Thr
145
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<210> 323

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 323

```
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1           5           10           15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
          20           25           30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
          35           40           45
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
          50           55           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65           70           75           80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
          85           90           95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
          100          105          110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
          115          120          125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130           135           140
Leu Thr
145
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<210> 324

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 324

```
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1           5           10           15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
          20           25           30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
          35           40           45
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
          50           55           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
65           70           75           80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
          85           90           95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
          100          105          110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
          115          120          125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
          130          135          140
Leu Thr
145
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<210> 325

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 325

```
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1           5           10           15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
          20           25           30
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
          35           40           45
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
          50           55           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65           70           75           80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
          85           90           95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
          100          105          110
Thr Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
          115          120          125
Val Phe Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
          130          135          140
Leu Thr
145
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<210> 326

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<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105					110			
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120					125				
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	Asn	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90					95		
Leu	Leu	Arg	Arg	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105					110			
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120					125				
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
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<212> PRT

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70				75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Ala
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70				75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Ala
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Lys
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

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<220>
<223> Synthetic Protein Sequence

<400> 332
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
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His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Arg Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 333
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 333
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Val Ser Phe His Gln Ala Glu His Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Thr Pro Pro Ala Gly Pro His Ile Leu Met Tyr Thr Lys
130 135 140
Leu Thr
145

<210> 334

<211> 146
 <212> PRT
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<220>
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<400> 334
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 335
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 335
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Lys Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 336
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 336
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 337
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 337
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 338
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 338
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Lys
 115 120 125
 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 339
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 339
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Arg Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 340
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 340
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
 50 55 60
 Glu Gly Glu Glu Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg Tyr Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 341
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 341
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Gln Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Gly Leu
 50 55 60
 Glu Gly Glu Glu Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr

145

<210> 342

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 342

Met	Ile	Asp	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gln	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135						140			
Leu	Thr														
145															

<210> 343

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 343

Met	Ile	Glu	Val	Lys	Pro	Ile	Ser	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gln	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135						140			

Leu Thr
145

<210> 344
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 344
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Ala
145

<210> 345
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 345
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Cys Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Val Arg Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Gly
115 120 125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys

130
Leu Ala
145

135

140

<210> 346
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 346
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Cys Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 347
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 347
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Asn Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Val Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
115 120 125

Ile Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Ala
 145

<210> 348
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 348
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 349
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 349
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Gln Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu

	115		120		125
Val	Tyr	Asp	Ile	Pro	Pro
	130		135		
Leu	Thr				
145					

<210> 350
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400>	350														
Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gln	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Lys	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Ala														
145															

<210> 351
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400>	351														
Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Asp
		35					40					45			
Arg	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		

Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
145															

<210> 352
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Ile
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Ala														
145															

<210> 353
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Asn	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr

			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115					120					125					
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
	130					135					140						
Leu	Ala																
145																	

<210> 354

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 354

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg		
1				5					10					15			
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu		
			20					25					30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Asp		
		35					40					45					
Arg	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu		
	50					55					60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65					70				75					80			
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
				85					90					95			
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115					120					125					
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
	130					135					140						
Leu	Thr																
145																	

<210> 355

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 355

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg		
1				5					10					15			
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu		
			20					25					30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gln	Gly		
		35					40					45					
Lys	Leu	Ile	Ser	Thr	Ala	Ser	Phe	His	Gln	Ala	Gly	His	Ser	Glu	Leu		
	50					55					60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65					70				75					80			
Tyr	Arg	Glu	Arg	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
				85					90					95			

Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Ile
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 356

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 356

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Phe	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gln	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50				55					60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90						95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50				55					60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu

				85					90					95			
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115					120					125					
Ala	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu		
			20				25						30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40						45					
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu		
	50				55					60							
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65				70					75					80			
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
			85					90					95				
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100				105						110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly		
		115				120						125					
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu		
			20				25						30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40						45					
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu		
	50				55					60							
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65				70					75					80			

Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Pro	Ala	Glu	His	Ser	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85						90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Ile
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120					125				
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly

65					70					75				80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu
				85					90					95
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg
			100					105					110	Thr
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Lys	Gln	Gly
		115					120					125		Glu
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys
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Leu	Thr													
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr
			20				25					30		Glu
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg
		35					40					45		Gly
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu
	50					55				60				Leu
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu
65				70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu
				85					90				95	Glu
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg
			100					105					110	Ile
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly
		115				120						125		Gly
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys
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Leu	Thr													
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			20				25					30		Glu
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg
		35					40					45		Gly
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu
	50					55					60			Leu

Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Gly	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gln	Asp
		35					40					45			
Arg	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	Tyr	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Ile
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu

50					55					60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			

Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
50						55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90						95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Ile
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90						95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	Tyr	Ile	Leu	Met	Tyr	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly

Thr	Asp	Leu	Leu	Gly	Gly	Thr	Ser	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Asn	Ala	Glu	His	Ser	Glu	Leu
	50					55				60					
Asp	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105					110			
Ser	Val	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Ser	Met	Tyr	Lys	Lys
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Leu	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
	35					40					45				
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105					110			
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115				120					125				
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Ala														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu

		20					25				30				
Thr	Asp	Leu	Leu	Gly	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ser	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Leu	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Ile
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120					125				
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 374

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 374

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Ile
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115				120					125				
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 375

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 375

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	

His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70						75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Gly	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 376

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 376

Met	Ile	Glu	Ala	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70						75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 377

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 377

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
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1				5					10					15
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr
			20					25					30	
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg
		35					40					45		
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu
		50				55					60			Leu
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu
65				70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu
			85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg
			100					105					110	Thr
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	His	Gly
		115					120					125		Glu
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys
		130				135					140			Lys
Leu	Thr													
145														

<210> 378

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 378

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
145															

<210> 379

<211> 146

<212> PRT

<213> Artificial Sequence

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<223> Synthetic Protein Sequence

<400> 379

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85						90					95	
Leu	Leu	Arg	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr	
			100				105					110			
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 380

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 380

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gln	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Val	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85						90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105					110			
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 381

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 381
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Glu Gly His Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
115 120 125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 382
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 382
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 383
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 383

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10				15		
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85						90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 384

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 384

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10				15		
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Val	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85						90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 385

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 385

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Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1           5           10           15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
          20           25           30
Ala Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
          35           40           45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
          50           55           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65           70           75           80
Asn Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
          85           90           95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
          100          105          110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
          115          120          125
Val Tyr Asp Val Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
          130          135          140
Leu Thr
145
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<210> 386

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 386

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Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1           5           10           15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Arg Tyr Glu
          20           25           30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
          35           40           45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
          50           55           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65           70           75           80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
          85           90           95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
          100          105          110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
          115          120          125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
          130          135          140
Leu Thr
145
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<210> 387

<211> 146

<212> PRT

<213> Artificial Sequence

<223> Synthetic Protein Sequence

<222> 17

<223> Xaa = His or Pro

[illegible]

<211> 146

<212> PRT

<213> Artificial Sequence

$\langle 220 \rangle$

<223> Synthetic Protein Sequence

[illegible]

<210> 389
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 389
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 390
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 390
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 391
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 391
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg Gln Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
 115 120 125
 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Glu
 130 135 140
 Leu Thr
 145

<210> 392
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 392
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 393
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 393
 Met Ile Glu Val Lys Pro Ile Asn Ala Gly Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
 115 120 125
 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 394
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 394
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr

145

<210> 395

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 395

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Val	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Val	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 396

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 396

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Arg	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Gly	Leu
	50					55					60				
Glu	Gly	Lys	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				

Leu Thr
145

<210> 397
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 397
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Glu Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 398
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 398
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Asp Glu
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys

130
Leu Thr
145

135

140

<210> 399
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 399
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Gly
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu Gln Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
115 120 125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

<210> 400
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 400
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Ile Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
115 120 125

Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 401
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 401
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Val Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Pro Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Ile Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
 130 135 140
 Leu Thr
 145

<210> 402
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 402
 Met Ile Glu Ile Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu

	115		120		125										
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 403
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 403															
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1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 404
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 404															
Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		

Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
145															

<210> 405

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 405

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
145															

<210> 406

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 406

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Val	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Gly	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr

			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Gly	Gln	Gly	Glu		
		115					120					125					
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
		130				135					140						
Leu	Thr																
145																	

<210> 407

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 407

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg		
1				5					10					15			
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu		
			20				25						30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40						45					
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu		
		50				55					60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu		
65					70					75				80			
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
				85					90					95			
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115				120						125					
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
		130				135					140						
Leu	Thr																
145																	

<210> 408

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 408

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg		
1				5					10					15			
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu		
			20				25						30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40						45					
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu		
		50				55					60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu		
65					70					75				80			
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
				85					90					95			

Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	His	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 409

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 409

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Ile
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 410

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 410

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Ala	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu

				85					90					95			
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly		
		115					120					125					
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
	130					135					140						
Leu	Thr																
145																	

<210> 411
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 411																	
Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg		
1				5					10					15			
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu		
			20				25					30					
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40					45						
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu		
	50				55					60							
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65				70					75					80			
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
				85					90					95			
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100				105					110					
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly		
		115				120					125						
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
	130					135					140						
Leu	Thr																
145																	

<210> 412
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 412																	
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			20				25					30					
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40					45						
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu		
	50				55					60							
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65				70					75					80			

Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Leu	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Val	Cys	Ile	Ala	Ser	Phe	His	Lys	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Asp	Gly

65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
		100					105					110			
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115				120					125				
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55				60					

Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85						90					95
Leu	Leu	Arg	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr	
			100				105					110			
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu

50		55		60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly				
65		70		75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu				80
		85		90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr				95
		100		105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu				110
		115		120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys				125
		130		135
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		20		25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly				30
		35		40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu				45
		50		55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly				60
65		70		75
Tyr Arg Glu Gln Lys Val Gly Ser Thr Leu Ile Arg His Ala Glu Glu				80
		85		90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr				95
		100		105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly				110
		115		120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys				125
		130		135
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		20		25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly				30
		35		40
				45

Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
50						55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65						70				75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65					70				75						80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly

Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
		50					55				60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Ala
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Met	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Glu
65					70					75					80
Tyr	His	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asn	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu

			20					25					30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35					40					45					
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu		
		50				55					60						
Val	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65				70					75					80			
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
			85					90					95				
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100				105						110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115				120						125					
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
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		20				25						30					
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40					45						
Glu	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu		
		50				55					60						
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65				70					75					80			
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu		
			85					90					95				
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100				105						110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly		
		115				120						125					
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys		
	130					135					140						
Leu	Thr																
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			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70						75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Asp	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70						75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Leu	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
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<223> Synthetic Protein Sequence

<400> 430

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
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1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Leu	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Val	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70						75				80	
Tyr	Arg	Gly	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85					90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70						75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Ala
			85					90					95		
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Thr	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Leu	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85						90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Ile	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	Asn	Gln	Ala	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85						90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
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Leu	Thr														
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<223> Synthetic Protein Sequence

<400> 434

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 20      25      30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35      40      45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50      55      60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65      70      75      80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85      90      95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100      105      110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115      120      125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
130      135      140
Leu Thr
145
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<210> 435

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<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 435

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His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
 20      25      30
Thr Asp Leu Leu Gly Ser Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35      40      45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
 50      55      60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
 65      70      75      80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85      90      95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100      105      110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115      120      125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
130      135      140
Leu Thr
145
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gln	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Asn	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Ala														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Lys	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Glu	Glu	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Thr	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
		130				135						140			
Leu	Thr														
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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Gly	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Lys	His	Ala	Glu	Gln
				85					90					95	
Leu	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135						140			
Ile	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
			35				40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Gln
				85					90					95	
Leu	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
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			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
			35				40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Phe	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asn	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
	50					55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Gln
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Gly	Leu
	50					55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Ile	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
		50				55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Gln
				85					90					95	
Leu	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
145															

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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
145															

<210> 446

<211> 146

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 446
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Glu Thr Tyr Glu Leu Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asn Met Leu Trp Cys Asn Ala Arg Thr
100 105 110
Thr Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
130 135 140
Ile Thr
145

<210> 447
<211> 146
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Protein Sequence

<400> 447
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
1 5 10 15
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
20 25 30
Ser Asp Leu Leu Arg Gly Ala Leu His Leu Gly Gly Phe Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
50 55 60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Phe Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
85 90 95
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Lys
115 120 125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
130 135 140
Ile Thr
145

<210> 448

<211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 448
 Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
 1 5 10 15
 His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
 85 90 95
 Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130 135 140
 Leu Thr
 145

<210> 449
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 449
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
 20 25 30
 Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Phe Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
 85 90 95
 Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130 135 140
 Ile Thr
 145

<210> 450
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 450
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
 20 25 30
 Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Phe Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Gln
 85 90 95
 Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130 135 140
 Ile Thr
 145

<210> 451
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 451
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
 1 5 10 15
 His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
 85 90 95
 Ile Leu Arg Lys Lys Gly Ala Asn Leu Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130 135 140
 Leu Thr
 145

<210> 452
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<221> unsure
 <222> 45
 <223> Xaa = Phe, Ser, Tyr, or Cys

<221> unsure
 <222> 105
 <223> Xaa = Leu, Met, or Val

<400> 452
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
 1 5 10 15
 His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Xaa Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Gln
 85 90 95
 Ile Leu Arg Lys Arg Gly Ala Asp Xaa Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130 135 140
 Leu Thr
 145

<210> 453
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 453
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Gln
 85 90 95

Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
145															

<210> 454

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 454

Met	Leu	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Phe	Glu
			20					25					30		
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
145															

<210> 455

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 455

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Val	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Phe	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Gln

				85					90					95			
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115					120					125					
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg		
	130					135					140						
Leu	Thr																
145																	

<210> 456
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 456																	
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1				5					10					15			
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Phe	Glu		
			20				25					30					
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly		
		35				40					45						
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu		
	50					55					60						
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65				70					75					80			
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Gln		
			85						90					95			
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115				120						125					
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg		
	130					135					140						
Leu	Thr																
145																	

<210> 457
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 457																	
Met	Leu	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg		
1				5					10					15			
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Val	Cys	Met	Tyr	Glu		
			20				25					30					
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly		
		35				40					45						
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu		
	50					55					60						
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65				70					75					80			

Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
145															

<210> 458
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 458															
Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Val	Cys	Met	Tyr	Glu
			20				25					30			
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Asp	Leu
	50					55				60					
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Gln
			85						90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105					110			
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120						125			
Val	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
145															

<210> 459
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 459															
Met	Leu	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Phe	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
	50					55				60					
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly

65					70					75					80
Phe	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
145															

<210> 460
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 460															
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1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Phe	Glu
			20				25					30			
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55				60					
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Gln
			85					90					95		
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105					110			
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115				120					125				
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
145															

<210> 461
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 461															
Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Val	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Gly	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Asp	Leu
	50					55				60					

Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Gln
				85					90					95	
Leu	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
145															

<210> 462
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Leu	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
145															

<210> 463
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

Met	Leu	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Phe	Glu
			20				25					30			
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Gly	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu

50		55		60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly				
65		70		75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Gly				80
		85		90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr				95
		100		105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu				110
		115		120
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg				125
		130		135
Ile Thr				140
145				

<210> 464

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 464

Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg				
1		5		10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu				15
		20		25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly				30
		35		40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu				45
		50		55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly				60
65		70		75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Gln				80
		85		90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr				95
		100		105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu				110
		115		120
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg				125
		130		135
Leu Thr				140
145				

<210> 465

<211> 146

<212> PRT

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<223> Synthetic Protein Sequence

<400> 465

Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg				
1		5		10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu				15
		20		25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly				30
		35		40
				45

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Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
  50      55      60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65      70      75      80
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
      85      90      95
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
      100      105      110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115      120      125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
      130      135      140
Leu Thr
145

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<210> 466

<211> 146

<212> PRT

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<223> Synthetic Protein Sequence

<400> 466

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Met Ile Glu Val Lys Pro Ile Asn Ala Glu Glu Thr Tyr Glu Leu Arg
  1      5      10      15
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
      20      25      30
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
      35      40      45
Gln Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
      50      55      60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65      70      75      80
Phe Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
      85      90      95
Ile Leu Arg Asn Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
      100      105      110
Thr Ala Ser Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu His Gly Glu
      115      120      125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
      130      135      140
Ile Thr
145

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<210> 467

<211> 146

<212> PRT

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<220>

<223> Synthetic Protein Sequence

<400> 467

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Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
  1      5      10      15
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
      20      25      30
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly

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Ser	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	Gln	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Lys	His	Ala	Glu	Glu
			85						90					95	
Ile	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
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<400> 470

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Glu	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Phe	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Glu
			85						90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
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<210> 471

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<223> Synthetic Protein Sequence

<400> 471

Met	Leu	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Glu	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu

		20					25				30			
Thr	Asp	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35				40					45			
Gln	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp
		50				55					60			Leu
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu
65					70					75				80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Lys	His	Ala	Glu
				85					90					95
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg
			100					105					110	Thr
Thr	Ala	Ala	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly
		115					120					125		Glu
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys
	130					135					140			Lys
Ile	Thr													
145														

<210> 472

<211> 146

<212> PRT

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<220>

<223> Synthetic Protein Sequence

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Ser	Asp	Leu	Leu	Arg	Ser	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Lys	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
145															

<210> 473

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 473

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	

His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Ser	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
		50				55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Gln
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	His	Gly	Glu
		115					120					125			
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
145															

<210> 474
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 <212> PRT
 <213> Artificial Sequence

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Met	Leu	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Thr	Ala	Ala	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Tyr	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 475
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Glu	Thr	Tyr	Glu	Leu	Arg
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1				5					10					15			
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu		
			20					25					30				
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly		
		35					40					45					
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Asp	His	Ser	Glu	Leu		
		50				55					60						
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65					70					75					80		
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Gln		
				85					90					95			
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	His	Gly	Glu		
		115					120					125					
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg		
		130				135					140						
Leu	Thr																
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<210> 476

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 476

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg		
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu		
			20					25					30				
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly		
		35					40					45					
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu		
		50				55					60						
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly		
65					70					75					80		
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Glu		
				85					90					95			
Ile	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr		
			100					105					110				
Thr	Ala	Ala	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu		
		115					120					125					
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg		
		130				135					140						
Ile	Thr																
145																	

<210> 477

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Ser	Asp	Leu	Leu	Gln	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Gln	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
		50				55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Phe	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	His	Gly	Glu
		115					120					125			
Ile	Phe	Asp	Thr	Pro	Pro	Ala	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 478

<211> 146

<212> PRT

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<400> 478

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Glu	Thr	Tyr	Glu	Leu	Arg
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Gln	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Ser	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Gln	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	His	Gly	Glu
		115					120					125			
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
145															

<210> 479

<211> 146

<212> PRT

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<220>

<223> Synthetic Protein Sequence

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Gln	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Lys	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Lys	His	Ala	Glu	Gln
				85					90					95	
Leu	Leu	Arg	Glu	Lys	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

<210> 480

<211> 146

<212> PRT

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<220>

<223> Synthetic Protein Sequence

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Ser	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Lys	Ala	Glu	His	Ser	Asp	Leu
		50				55					60				
Glu	Gly	Gln	Asn	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	His	Gly	Glu
		115					120					125			
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
145															

<210> 481

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 481

Met	Leu	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Gln	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Lys	Ala	Glu	His	Ser	Asp	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Gln
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
145															

<210> 482

<211> 146

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Protein Sequence

<400> 482

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
	50					55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Gln
				85					90					95	
Leu	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	His	Gly	Glu
		115					120					125			
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
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<211> 146

<212> PRT

<213> Artificial Sequence

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<223> Synthetic Protein Sequence

<400> 483

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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Ser	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Gln	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Phe	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Lys	His	Ala	Glu	Gln
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	His	Gly	Glu
		115					120					125			
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20				25						30		
Ser	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
	50					55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	His	Gly	Glu
		115					120					125			
Ile	Tyr	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Ile	Thr														
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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Ser	Asp	Leu	Leu	Arg	Gly	Ser	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35				40					45				
Gln	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
	50					55				60					
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Glu
			85						90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ala	Gly	Tyr	Tyr	Lys	Arg	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Ile	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40					45				
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55				60					
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65				70					75					80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Val	Lys	His	Ala	Glu	Glu
			85						90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100				105						110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
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Met	Leu	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Ile	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Ser	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50						55				60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Val	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Gly	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50						55				60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
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<212> PRT

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His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
      20           25           30
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
      35           40           45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
      50           55           60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65           70           75           80
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
      85           90           95
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
      100          105          110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115          120          125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
      130          135          140
Ile Thr
145
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His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
      20           25           30
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
      35           40           45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
      50           55           60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65           70           75           80
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
      85           90           95
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
      100          105          110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115          120          125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
      130          135          140
Ile Thr
145
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His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
20 25 30
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Gly Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
50 55 60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
85 90 95
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
130 135 140
Ile Thr
145

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His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
20 25 30
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
50 55 60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
85 90 95
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
130 135 140
Ile Thr
145

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<211> 146
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 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
 85 90 95
 Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130 135 140
 Ile Thr
 145

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 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
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 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
 85 90 95
 Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130 135 140
 Ile Thr
 145

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<221> unsure
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<221> unsure
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 <223> Xaa = Ile, Thr, Asn, or Ser

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 His Lys Ile Leu Arg Pro Asn Gln Pro Xaa Glu Val Cys Met Tyr Glu
 20 25 30
 Xaa Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Gln
 85 90 95
 Ile Leu Arg Glu Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130 135 140
 Leu Thr
 145

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 His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly

65					70					75				80
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu
				85					90					95
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg
			100					105					110	Thr
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly
		115					120					125		Glu
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys
	130					135					140			Arg
Leu	Thr													
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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Val	Cys	Met	Tyr
			20				25					30		Glu
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg
		35				40						45		Gly
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp
	50					55				60				Leu
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu
65				70					75					80
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu
				85					90				95	Gln
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg
			100				105					110		Thr
Ser	Ala	Ser	Gly	Tyr	Tyr	Arg	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly
		115					120					125		Glu
Val	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys
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Leu	Thr													
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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Val	Cys	Met	Tyr
			20				25					30		Glu
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg
		35				40						45		Gly
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp
	50					55				60				Leu

Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Asp	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Gln
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Ile	Thr														
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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Leu	Arg
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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Val	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
	50					55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Gln
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
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Leu	Thr														
145															

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<212> PRT

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His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Val	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu


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65      70      75      80
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
      85      90      95
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
      100      105      110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115      120      125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
      130      135      140
Leu Thr
145

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 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

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<400> 501
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 1      5      10      15
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
      20      25      30
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
      35      40      45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
      50      55      60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65      70      75      80
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
      85      90      95
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
      100      105      110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115      120      125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
      130      135      140
Ile Thr
145

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<210> 502
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 502
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
 1      5      10      15
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
      20      25      30
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
      35      40      45

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Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Asp Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Gln
 85 90 95
 Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130 135 140
 Leu Thr
 145

<210> 503
 <211> 146
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Protein Sequence

<400> 503
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
 1 5 10 15
 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
 35 40 45
 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
 50 55 60
 Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
 65 70 75 80
 Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
 85 90 95
 Ile Leu Arg Lys Arg Gly Ala Asp Leu Trp Cys Asn Ala Arg Thr
 100 105 110
 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
 115 120 125
 Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130 135 140
 Ile Thr
 145

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<220>
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<400> 504
 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
 1 5 10 15
 His Arg Val Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
 20 25 30
 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly

Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Phe	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
	50					55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Lys	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Met	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Ile	Phe	Glu	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
145															

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<400> 507

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1				5					10					15	
His	Lys	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Val	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Arg	Gly	Ala	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Asp	Leu
	50					55					60				
Gln	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Ser	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Ile	Leu	Arg	Lys	Arg	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Ala	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Phe	Asp	Thr	Pro	Pro	Val	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Arg
	130					135					140				
Leu	Thr														
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<400> 508

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu

		20					25				30				
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Asn	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
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<210> 509

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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20				25					30			
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35				40						45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Phe	Val	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	Tyr	Ile	Leu	Met	Tyr	Glu	Lys
	130					135					140				
Leu	Thr														
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Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Cys	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Ala														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Pro	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75					80
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Glu	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
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His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Lys	Tyr	Glu
		20						25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Asn	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
				85					90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Glu
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
		130				135					140				
Leu	Thr														
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<210> 513
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<400> 513
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His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
20 25 30
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
35 40 45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
50 55 60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
65 70 75 80
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
85 90 95
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
100 105 110
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
115 120 125
Val Cys Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
130 135 140
Leu Thr
145

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 <211> 146
 <212> PRT
 <213> Artificial Sequence

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<400> 514

Met	Ile	Glu	Val	Lys	Pro	Ile	Asn	Ala	Glu	Asp	Thr	Tyr	Glu	Ile	Arg
1				5					10					15	
His	Arg	Ile	Leu	Arg	Pro	Asn	Gln	Pro	Leu	Glu	Ala	Cys	Met	Tyr	Glu
			20					25					30		
Thr	Asp	Leu	Leu	Gly	Gly	Thr	Phe	His	Leu	Gly	Gly	Tyr	Tyr	Arg	Gly
		35					40					45			
Lys	Leu	Ile	Ser	Ile	Ala	Ser	Phe	His	Gln	Ala	Glu	His	Ser	Glu	Leu
		50				55					60				
Glu	Gly	Gln	Lys	Gln	Tyr	Gln	Leu	Arg	Gly	Met	Ala	Thr	Leu	Glu	Gly
65					70					75				80	
Tyr	Arg	Glu	Gln	Lys	Ala	Gly	Ser	Thr	Leu	Ile	Arg	His	Ala	Glu	Glu
			85						90					95	
Leu	Leu	Arg	Lys	Lys	Gly	Ala	Asp	Leu	Leu	Trp	Cys	Asn	Ala	Arg	Thr
			100					105					110		
Ser	Val	Ser	Gly	Tyr	Tyr	Lys	Lys	Leu	Gly	Phe	Ser	Glu	Gln	Gly	Gly
		115					120					125			
Val	Tyr	Asp	Ile	Pro	Pro	Ile	Gly	Pro	His	Ile	Leu	Met	Tyr	Lys	Lys
	130					135					140				
Leu	Thr														
145															

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<212> DNA

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<223> Synthetic DNA Sequence

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